

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. – 18. (Canceled).

19. (Currently Amended) A method for crystallizing a target material comprising:
providing a microfabricated elastomeric block having a chamber therein;
introducing into the chamber a solution of the target material; and
introducing a crystallization agent into the solution in the chamber by entrapping a volume of crystallizing agent proximate to the chamber and then opening an elastomer valve positioned between the chamber and the crystallization agent to allow diffusion of crystallization agent into the chamber.

20. – 22. (Canceled).

23. (Previously Presented) The method of claim 19 wherein the chamber is defined by a junction between a first flow channel that intersects a second flow channel, and wherein the sample is flowed through the first flow channel and the crystallization agent flowed through the second flow channel.

24. (Previously Presented) The method of claim 23 wherein an array of chambers is defined by a junction between a first set of flow channels that intersect a second set of flow channels, and wherein samples are flowed through the first flow channels and crystallization agents are flowed through the second flow channels to create an array of solution conditions.

25. – 32. (Canceled).

33. (Previously Presented) A method for crystallizing a target material comprising:

- providing a microfabricated elastomeric structure having a chamber therein;
- introducing into the chamber a solution of the target material;
- introducing a volume of a crystallization agent into the solution in the chamber,

wherein the crystallizing agent is introduced into the chamber by entrapping a volume of crystallizing agent proximate to the chamber, and then opening an elastomer valve positioned between the chamber and the crystallization agent to allow diffusion of crystallization agent into the chamber; and,

- obtaining an image of the elastomeric structure.

34. (Previously Presented) A method for crystallizing a target material comprising:

- providing a microfabricated elastomeric structure having a chamber therein;
- introducing into the chamber a solution of the target material; and
- introducing a volume of a crystallization agent into the solution in the chamber,

wherein the crystallizing agent is introduced into the chamber by entrapping a volume of crystallizing agent proximate to the chamber, and then opening an elastomer valve positioned between the chamber and the crystallization agent to allow diffusion of crystallization agent into the chamber; and,

- inspecting the chamber to reveal the presence of a crystal.

35. (Previously Presented) The method of claim 34, further comprising removing the crystal from the chamber.

36. (Previously Presented) The method of claim 34, wherein the inspecting is performed using a microscope.

37. (Previously Presented) The method of claim 34, wherein the inspecting further comprises imaging the crystal.

38. (Previously Presented) The method of claim 37, wherein the inspecting is performed using a microscope.